ISPOR Fifth Annual International Meeting

Contributed Presentation Abstracts

Decision Analytic Modeling D

D1

DEVELOPMENT AND VALIDATION OF A SCREENING INSTRUMENT FOR GASTROESOPHAGEAL REFLUX DISEASE (GERD)

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A reliable, accurate, noninvasive method for identifying patients with GERD in the primary care setting is needed. A population-screening instrument may assist managed care organizations and clinicians to identify candidates for disease management, or quality improvement programs. **OBJECTIVE:** To develop and validate a GERD screening instrument. **METHODS:** A screening instrument containing 10 questions was developed based on literature review and expert opinion. Categorical and continuous scoring methods with and without medication use were identified a priori. Using telephone interview in a medical group, we identified and enrolled 100 subjects with a history of GERD-like symptoms and 100 controls. Each subject completed the screening instrument, a validated gastrointestinal symptom questionnaire (DHSI), and was evaluated independently by 2 gastroenterologists using a structured format. The gold standard was defined as patients who required an intervention and who had physician agreement that their symptoms were consistent with GERD. **RESULTS:** 70 subjects were classified as GERD using the gold standard (kappa = 0.79). Using a continuous measure of GERD symptoms, including frequency, severity, and type of medication use as the scoring method (total score range 0–29), an area under the receiver operator characteristic curve (ROC) of 0.89 (95% CI 0.84–0.94) was observed. Using a cutoff of >9 points, this measure is 83% sensitive and 82% specific. Using a cutoff of >12 points, this measure is 65% sensitive and 92% specific. Compared to the gold standard, the DHSI GERD subscale has a ROC of 0.89 (95% CI 0.84–0.94). The screening instrument was highly correlated with the DHSI GERD subscale, r = 0.74 (95% CI 0.67–0.80; $P < 0.0001$). **CONCLUSIONS:** The screening instrument appears to have construct, convergent and predictive validity. It is shorter than existing validated instruments, practical and easily administered. This may serve as a valuable case-finding instrument in primary care and managed care organizations.

D2

COST UTILITY OF DOCETAXEL VS VINORELBINE OR PACLITAXEL IN ADVANCED BREAST CANCER

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There are three licensed alternatives for managing advanced breast cancer (ABC) patients in the UK, but they have not been directly compared in clinical studies. **OBJECTIVE:** To capture the costs and quality of life (QoL) related outcomes for ABC patients managed with docetaxel (DOC) in comparison to vinorelbine (VIN) and paclitaxel (PAC). **METHODS:** An updated version of the Hutton et al. (*Pharmacoeconomics* 9 Suppl 2, 1996) model was used to simulate the experiences (associated costs and outcomes) of patients undergoing treatment for ABC, from the onset of salvage chemotherapy to death. Published clinical trials were used to establish response rate, time to progression, median survival, rate of grade four febrile neutropenia, and toxicity rate related to chemotherapeutic agent. QoL utility scores were obtained from oncology nurses. Costs were taken from published sources and reflect the UK National Health Service and were discounted at 6%. **RESULTS:** The average patient costs were £4268 for VIN, £7817 for DOC and £7645 for PAC. The estimated Quality Adjusted Life Year (QALY) values were 0.48 for VIN, 0.73 for DOC and 0.65 for PAC; an additional 91 days of good quality life for DOC versus VIN and an additional 29 days of good quality life versus PAC. The incremental cost per QALY for DOC was £14,500 compared with VIN and £1,990 compared with PAC. Various sensitivity analyses were undertaken and did not greatly change the findings. The cost-effectiveness ratios are within the range of generally acceptable technologies. **CONCLUSION:** Patients managed with DOC have improved QoL in comparison to these alternative chemotherapies and a longer median survival.

D3

A PHARMACOECONOMIC MODEL TO ASSESS THE COST-EFFECTIVENESS OF TROVAFLOXACIN COMPARED TO CEFTAZIDIME FOR NOSOCOMIAL PNEUMONIA IN A PUBLIC HOSPITAL SETTING IN HONG KONG

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